

ABSTRACT

CARRIER CONSTELLATION INFORMATION IN MULTI-CARRIER SYSTEMS

In a multi-carrier system, the carriers ($f_0 \dots f_{511}, f_{512} \dots f_{1023}, \dots, f_{3584} \dots f_{4095}$)
5 are grouped in subsets (SUBSET1; SUBSET2; ...; SUBSET8). A constellation
information transmitting arrangement (BiGi_TA), for instance located in the
multi-carrier receiver (RX), produces for each carrier subset (SUBSET1;
SUBSET2; ...; SUBSET8) a limited set of parameter values (B1, G1; B2, G2; ...;
B8, G8) and transmits these sets of parameter values (B1, G1; B2, G2; ...; B8,
10 G8) to a constellation information receiving arrangement (BiGi_RA), for
instance located in the multi-carrier transmitter (TX). Through interpolation of
the limited set of parameter values (B1, G1; B2, G2; ...; B8, G8) the latter
constellation information receiving arrangement (BiGi_RA) determines the
constellation where each carrier ($f_0 \dots f_{511}, f_{512} \dots f_{1023}, \dots, f_{3584} \dots f_{4095}$) of a carrier
15 subset (SUBSET1; SUBSET2; ...; SUBSET8) will be modulated with.